Course Syllabus

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Lecture notes & downloads

Available under the "files" tab.

Instructor, GSIs, and contact

Instructor: Prof. Mark W. Mueller, 5136 Etcheverry Hall. GSIs: Milad Shirani and Jinge Wang. Their office hours will be held in either Hesse Hall (GSI room) or Etcheverry Hall 1171.

Please use Piazza for course related correspondence – this is to ensure that all students have access to the same information. Only contact the instructor or GSI for matters that must be discussed in private (such as grades). Email addresses for the GSIs are milad_shirani@berkeley.edu and jinge@berkeley.edu, for the instructor mwm@berkeley.edu.

Office Hours

Prof. Mueller's office hours are held in 5136 Etcheverry Hall and the GSI's office hours are held in Hesse Hall (GSI Room) or EH 1171. The schedule of office hours is:

- *Prof. Mueller* holds office hours Wednesdays **15:00-17:00** (Etcheverry 5136).
- **Monday:**
  - **11:00-12:00** by *Jinge Wang (EH1171)*
  - **16:30-18:30** by *Milad Shirani (Hesse)*
- **Tuesday:**
  - **11:30-12:30** by *Milad Shirani (Hesse)*
- **Wednesday:**
  - **11:00-12:00** by *Milad Shirani (Hesse)*
- **Thursday:**
  - **15:00-16:30** by Jinge Wang *(EH1171)*

You can also email the GSIs to set up an appointment.

Discussion Sessions

Discussion sessions will be held on

- *S 101 DIS:* Tuesdays 13:00–14:00 in 3106 Etcheverry Hall (GSI Milad Shirani).
- *S 102 DIS:* Thursdays 14:00–15:00 in 3106 Etcheverry Hall (GSI Jinge Wang).

Grading

The course grade will be based on the following components:

Midterm 1	20%

Midterm 2	25%
Homework	10%
End of semester evaluation	5%
Final exam	40%

In accordance with departmental guidelines, the mean GPA for the course will be ≈2.9.

Academic misconduct policy: we will have no patience, tolerance, or mercy regarding suspected cases of misconduct. All suspected cases will be referred to the Center for Student Conduct, and additional penalties will be applied as deemed relevant (almost always, students will receive a grade of F for the course).

Important dates

- Midterm 1: Mon 2019-03-04 **(regular class hours)**
- Midterm 2: Mon 2019-04-15 **(regular class hours)**
- Final exam: Tue 2019-05-14 from 11:30–14:30 in **TBD**

Text, Reader and Supplemental Material

All of the lectures will be taken from the book: O. M. O'Reilly, "Engineering Dynamics: A Primer", Second Edition Springer-Verlag, New York, 2010. The electronic version of this text is available for free at **https://link.springer.com/book/10.1007/978-1-4419-6360-4 (https://link.springer.com/book/10.1007/978-1-4419-6360-4) (updated link)**.

We will also use, *only for the homework*, J. L. Meriam, L. G. Kraige, and J. N. Bolton "Engineering Mechanics: Dynamics", Ninth Edition, Wiley, New York, 2018. You will need to purchase access to the electronic version of Meriam, Kraige, & Bolton at **https://edugen.wiley.com/edugen/secure/index.uni (https://edugen.wiley.com/edugen/secure/index.uni)** in order to be able to submit homework problems. Note: you need only purchase "WileyPLUS Instant Access Only", at a cost of $90. The course URL is **www.wileyplus.com/class/670899 (http://www.wileyplus.com/class/670899)**.

Homework

Homework problems will be assigned each week and are due on the Friday of the following week by 13:00. Each homework set has two components: e-problems through WileyPlus, and written problems. The written solutions must be scanned and submitted electronically -- no hardcopies will be accepted.

Far more is expected for the written solutions than is specified in Meriam, Kraige, & Bolton and you should look at the *Homework Assignments File* that are posted weekly on Bcourses. Your written homework solutions will be graded *primarily* on method and presentation. Homeworks which are late or deemed illegible will be returned ungraded and no credit will be given. Solutions to the homework will be posted on Bcourses.

Week	Topic	Sections from MK&B	Homework Problems D: Due date
1	Kinematics of Particles	1/1–1/7; 2/1–2/3	(D:2019-02-01)

2	Kinematics of Particles	2/4–2/7	(D:2019-02-08)
3	Kinematics of Particles Kinetics of Particles	2/8–2/9 3/1–3/4	(D:2019-02-15)
4	Kinetics of Particles	3/5	(D:2019-02-22)
5	Work & Energy Methods	3/6 & 3/7	(D:2019-03-01)
6	Impulse & Momentum	3/8 & 3/9	(D:2019-03-08)
7	Angular Momentum & Impact	3/10–3/12	(D:2019-03-15)
8	Systems of Particles	4/1–4/5	(D:2019-03-22)
9	Kinematics of Rigid Bodies	5/1–5/4	(D:2019-04-05)
Spring Break			
10	Kinematics of Rigid Bodies	5/5–5/7	(D:2019-04-12)
11	Moments of Inertia Dynamics of Rigid Bodies	Apps. A & B 6/1–6/3	(D:2019-04-19)
12	Dynamics of Rigid Bodies	6/4	(D:2019-04-26)
13	Dynamics of Rigid Bodies	6/5–6/6	(D:2019-05-03)
14	Dynamics of Rigid Bodies	6/8	(D:2019-05-10)
RRR Week			

Course Statistics

This section records the grade statistics for homework sections and midterms. Use this as reference to keep track of your course performance.

	WileyPlus	ASGN1WP	ASGN2WP	ASGN3WP	ASGN4WP	ASGN5WP	ASGN6WP	ASGN7WP	ASGN8WP
MEAN		29.98	35.70	19.50	28.49	36.20	35.70	35.10	45.01

MEDIAN		30.00	38.50	20.00	30.00	38.50	38.50	37.00	47.00
STD		8.40	6.05	1.71	2.52	4.89	6.09	5.96	6.93
	Written	Assignment 1	Assignment 2	Assignment 3	Assignment 4	Assignment 5			
MEAN		77.68	48.26	52.19	113.43	83.30			
MEDIAN		86.00	52.00	55.00	121.00	85.00			
STD		20.78	11.74	10.22	20.93	9.37			
	Midterm	Midterm #1							
MEAN		25.06							
MEDIAN		26.00							
STD		7.84							

Course Summary:

Date	Details	
Fri Feb 1, 2019	**Assignment 1** (https://bcourses.berkeley.edu/courses/1477867/assignments/7961163)	due by 1pm
Fri Feb 8, 2019	**Assignment 2** (https://bcourses.berkeley.edu/courses/1477867/assignments/7964161)	due by 1pm
Fri Feb 15, 2019	**Assignment 3** (https://bcourses.berkeley.edu/courses/1477867/assignments/7964678)	due by 1pm
Fri Feb 22, 2019	**Assignment 4** (https://bcourses.berkeley.edu/courses/1477867/assignments/7967503)	due by 1pm
Fri Mar 1, 2019	**Assignment 5** (https://bcourses.berkeley.edu/courses/1477867/assignments/7968679)	due by 1pm
Fri Mar 8, 2019	**Assignment 6** (https://bcourses.berkeley.edu/courses/1477867/assignments/7970929)	due by 1pm
Fri Mar 15, 2019	**Assignment 7** (https://bcourses.berkeley.edu/courses/1477867/assignments/7972909)	due by 1pm
Fri Mar 22, 2019	**Assignment 8** (https://bcourses.berkeley.edu/courses/1477867/assignments/7974892)	due by 1pm

Date	Details	
Fri Apr 5, 2019	**Assignment 9** (https://bcourses.berkeley.edu/courses/1477867/assignments/7976715)	due by 1pm
Fri Apr 12, 2019	**Assignment 10** (https://bcourses.berkeley.edu/courses/1477867/assignments/7978191)	due by 1pm
	ASGN1WP (https://bcourses.berkeley.edu/courses/1477867/assignments/7969732)	
	ASGN2WP (https://bcourses.berkeley.edu/courses/1477867/assignments/7969734)	
	ASGN3WP (https://bcourses.berkeley.edu/courses/1477867/assignments/7969733)	
	ASGN4WP (https://bcourses.berkeley.edu/courses/1477867/assignments/7969735)	
	ASGN5WP (https://bcourses.berkeley.edu/courses/1477867/assignments/7976566)	
	ASGN6WP (https://bcourses.berkeley.edu/courses/1477867/assignments/7976567)	
	ASGN7WP (https://bcourses.berkeley.edu/courses/1477867/assignments/7976568)	
	ASGN8WP (https://bcourses.berkeley.edu/courses/1477867/assignments/7976569)	
	Midterm #1 (https://bcourses.berkeley.edu/courses/1477867/assignments/7975071)	